

10.1071/FP14045\_AC

© CSIRO 2014

Supplementary Material: *Functional Plant Biology*, 2014, 41(10-11), 1138–1147.

## Supplementary Material

### Harvest index combined with impaired N availability constrains the responsiveness of durum wheat to elevated CO<sub>2</sub> concentration and terminal water stress

Gorka Erice<sup>A,D</sup>, Alvaro Sanz-Sáez<sup>B,E</sup>, Amadeo Urdiain<sup>A</sup>, Jose L. Araus<sup>B</sup>, Juan José Irigoyen<sup>A</sup> and Iker Aranjuelo<sup>C,F</sup>

<sup>A</sup>Departamento de Biología Vegetal, Sección Biología Vegetal, Facultades de Ciencias y Farmacia, Universidad de Navarra, c/ Irunlarrea 1, Pamplona, Navarra, Spain.

<sup>B</sup>Departament de Biología Vegetal, Facultat de Biología, Universidad de Barcelona, Av. Diagonal, 645 08028 Barcelona, Spain.

<sup>C</sup>Instituto de Agrobiotecnología, Universidad Pública de Navarra-CSIC-Gobierno de Navarra, Avenida de Pamplona 123, E-31192, Mutilva Baja, Spain.

<sup>D</sup>Present address: Institute for Genomic Biology, University of Illinois, Urbana-Champaign, 1206 W. Gregory Drive, Urbana, IL 61801, USA.

<sup>E</sup>Present address: Departments of Plant Biology and Crop Science, University of Illinois, Urbana-Champaign, 1201 W. Gregory Drive, Urbana, IL 61801, USA.

<sup>F</sup>Corresponding author. Email: [iker.aranjuelo@unavarra.es](mailto:iker.aranjuelo@unavarra.es)

**Table S1. Summary of the statistical significances, F and p values (within parenthesis), of the different parameters measured in this study**

	<b>Agrowth</b> ( $\mu\text{mol m}^{-2} \text{s}^{-1}$ )	<b>g<sub>m</sub></b> ( $\mu\text{mol m}^{-2} \text{s}^{-1}$ )	<b>Cc</b> ( $\mu\text{mol mol}^{-1}$ )	<b>Rd</b> ( $\mu\text{mol m}^{-2} \text{s}^{-1}$ )	<b>A<sub>400</sub></b> ( $\mu\text{mol m}^{-2} \text{s}^{-1}$ )	<b>A<sub>700</sub></b> ( $\mu\text{mol m}^{-2} \text{s}^{-1}$ )	<b>Fv/Fm</b> ( $\mu\text{mol mol}^{-1}$ )
<b>Genotype</b>	0.332 (0.571)	2.11 (0.165)	1.12 (0.304)	1.25 (0.278)	1.07 (0.313)	0.007 (0.934)	0.96 (0.34)
<b>CO<sub>2</sub></b>	14.55 ( $\leq 0.001$ )	5.61 (0.031)	3.96 (0.062)	0.54 (0.47)	31.06 ( $\leq 0.001$ )	0.756 (0.395)	3.69 (0.07)
<b>Water</b>	57.01 ( $\leq 0.001$ )	8.43 (0.010)	5.58 (0.30)	0.49 (0.49)	62.32 ( $\leq 0.001$ )	44.35 ( $\leq 0.001$ )	4.11 (0.057)
<b>Gen x CO<sub>2</sub></b>	1.13 (0.301)	1.85 (0.192)	1.082 (0.312)	0.19 (0.67)	3.40 (0.081)	1.76 (0.2)	0.55 (0.47)
<b>Gen x water</b>	1.72 (0.25)	4.22 (0.057)	0.009 (0.924)	0.97 (0.33)	3.06 (0.096)	4.07 (0.058)	0.17 (0.68)
<b>CO<sub>2</sub> x water</b>	5.8 (0.026)	2.29 (0.150)	4.08 (0.058)	0.12 (0.73)	0.374 (0.548)	3.65 (0.071)	0.005 (0.94)
<b>Gen x CO<sub>2</sub> x Water</b>	1.47 (0.24)	1.52 (0.235)	2.11 (0.163)	0.85 (0.36)	5.87 (0.026)	3.73 (0.068)	0.315 (0.58)

  

	<b>Starch</b> ( $\text{mg g}^{-1} \text{DM}$ )	<b>TSP</b> ( $\text{mg g}^{-1} \text{DM}$ )	<b>Rubisco</b> ( $\mu\text{mol g}^{-1} \text{DM}$ )	<b>Aa</b> ( $\mu\text{mol g}^{-1} \text{DM}$ )	<b>NO<sub>3</sub></b> ( $\text{g m}^{-2}$ )	<b>Sucrose</b> ( $\text{mg g}^{-1} \text{DM}$ )
<b>Genotype</b>	10.65 (0.005)	8.77 (0.009)	4.44 (0.051)	0.031 (0.863)	3.63 (0.075)	23.80 ( $\leq 0.001$ )
<b>CO<sub>2</sub></b>	3.41 (0.083)	34.92 ( $\leq 0.001$ )	42.24 ( $\leq 0.001$ )	5.27 (0.035)	7.46 (0.015)	61.91 ( $\leq 0.001$ )
<b>Water</b>	3.46 (0.081)	33.34 ( $\leq 0.001$ )	43.95 ( $\leq 0.001$ )	1.05 (0.321)	1.35 (0.262)	48.21 ( $\leq 0.001$ )
<b>Gen x CO<sub>2</sub></b>	0.43 (0.522)	7.9 (0.013)	0.22 (0.646)	2.19 (0.158)	0.03 (0.865)	3.13 (0.096)
<b>Gen x water</b>	0.42 (0.527)	33.48 ( $\leq 0.001$ )	30.79 ( $\leq 0.001$ )	0.178 (0.679)	0.049 (0.827)	1.18 (0.293)
<b>CO<sub>2</sub> x water</b>	0.005 (0.945)	2.37 (0.144)	25.27 ( $\leq 0.001$ )	0.019 (0.893)	4.36 (0.053)	3.43 (0.083)
<b>Gen x CO<sub>2</sub> x Water</b>	41.40 ( $\leq 0.001$ )	0.026 (0.873)	1.29 (0.272)	0.068 (0.798)	0.625 (0.441)	26.63 ( $\leq 0.001$ )